



Portal Launch

Development of a National Land Use Planning Portal (NLUPP) for Rwanda Natural Resources Authority / Department of Lands and Mapping

Subcontract N°AID-696-C-12-00002-ESRI Rwanda 01

Client: CHEMONICS Rwanda LAND, LLC

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Beneficiary: Rwanda Natural Resources Authority (RNRA)

Department of Lands and Mapping

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Date 5th December 2014

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1. Introduction

According to the Subcontract N°AID-696-C-12-00002-ESRI Rwanda 01 between Chemonics Rwanda LANS LLC and Esri Rwanda, the portal launch for public use should be done with a close collaboration between RNRA, LAND project and Esri Rwanda as deliverable 15.

It is in this content that the portal launch happened on 26th November 2014 at Umubano Hotel and has been attended approximately by 80 persons including the District Land Officers (DLO) from all the 30 districts of the country that were trained the day before.

This document has the following chapters:

- 1. Introduction
- 2. Portal Launch agenda

More details are given in the following chapters.

2. Portal Launch agenda

The following is the agenda for the portal launch.





National Land Use Planning Portal Launch

Tentative Program for November 26th 2014

TIME	Topics	PRESENTERS	
8:30 - 9:00	Arrival and Registration		
9:00 – 9:30	Opening Remarks	MINIRENA/RNRA and USAID	
9:30 - 10:15	Presentation and Demo of the Portal Overview of the portal Search for Land Use Maps Search for Land Use Data Search for Land Use Documents Using services from the Portal Portal help and Resources	Esri	
10:15-10:30	Coffee/tea break		
10:30 - 11:00	Questions	Participants	
11:00 – 11:15 Closing Remarks		RNRA and USAID/LAND Project	
11:15 – 12:30	Getting familiar with the portal	RNRA and Esri	
12:30-13:30 Lunch		-	

Details about the above agenda can be found in the following sub chapters.

2.1 Participants registration

The portal launch has been attended approximately by 80 persons from various government, NGO, private institutions. The following is a list of registered participants:





NATIONAL LAND USE PLANNING PORTAL LAUNCH

ATTENDANCE SHEET

VENUE: HOTEL UMUBANO
DATE: NOVEMBER 26, 2014

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NATIONAL LAND USE PLANNING PORTAL LAUNCH

ATTENDANCE SHEET

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DATE: NOVEMBER 26, 2014

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NATIONAL LAND USE PLANNING PORTAL LAUNCH

ATTENDANCE SHEET

VENUE: HOTEL UMUBANO
DATE: NOVEMBER 26, 2014

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2.2 Opening remarks



The portal launch was opened by:

 Eng. Didier Sagashya, Deputy Director General, Lands and Mapping Department, Rwanda Natural Resources Authority (RNRA)

In his opening remarks, Eng. Didier recalled the importance of the portal for disseminating land use related information to the public and increase awareness and education on land use planning in Rwanda. He urged all people seeking information related to: Boundary maps, National Land use and Development Master Plan, District Land Use Plans, Local Urban Development plans, maps of schools, maps of health facilities, physical infrastructure maps, Land cover and hydrographic maps and demographic maps, etc. to visit the portal accessible at: https://rwandalanduse.rnra.rw

Anna Knox, Chief of Party, LAND Project

In her opening remarks, Anna explained the mission of the LAND project and the collaboration between LAND Project and RNRA that induced the LAND project to finance the development of the Rwanda Land Use Planning Portal. During her opening remarks, Anna described how the portal was developed with an ambitious implementation plan which was successfully followed thanks to a very successful collaboration between LAND Project, RNRA and Esri Rwanda. She said that the development of the portal did not happen without challenges and difficulties, however, they were successfully addressed on time and the portal is launched during the initial planned period. She completed her remarks thanking RNRA for their collaboration and emphasizing on the need to successfully regularly update and maintain the portal.

 Emily Krunic, Democracy and Governance Team Leader, United States Agency for International Development (USAID). The following is the opening remarks from Emily:

Transparency and making data accessible for the public to use is an important aspect of democracy. Open data makes space for meaningful input from the public, civil society and the private sector, and gives those groups, and policymakers, access to data to inform civic discussion and policy.

Like the GOR, USAID committed to transparency and to helping citizens gain access to information that affects their lives, as well as helping the government become more accessible and responsible to the needs of citizens in all sectors, including land.

This portal is an important step in that direction. USAID is very proud to have supported the development of this portal in collaboration with the Ministry of Natural Resources, the Rwanda Natural Resources Authority, and others.

We hope that the existence of the portal will be made well-known throughout the government, private sector, and the general public. And that the information available on the portal will be used widely to support continuous improvements in the land sector toward the end of more inclusive policies that help mitigate conflict, reduce poverty, and create equity of land access for women and other marginalized groups.

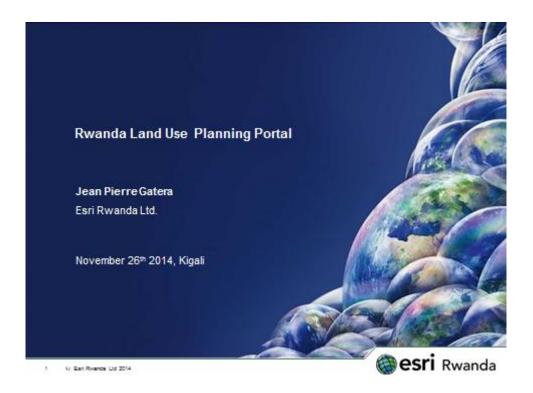
• **Fatina Mukarubibi**, Permanent Secretary, Ministry of Natural Resources (MINIRENA) who was the Guest Speaker.

In her launch remarks, the permanent secretary thanked USAID for supporting in the development of the National Land Use Planning Portal, all districts and government institutions for their support in the development of the land subsector. She said, "I recognize the role of ICT In national development especially in land administration and land use planning. Congratulations to the team from RNRA and USAID who developed this portal which makes information accessible to the general public". She requested the participants to act as ambassadors to disseminate it to citizens and make use of information it contains to increase awareness and education about land use planning in Rwanda.

2.3 Presentations made

2.3.1 Portal launch presentation

The following are the power point presentations made by Mr. Jean Pierre Gatera, Sales Manager at Esri Rwanda Ltd about the portal launch.



NLUP Portal



NLUP Portal Components



Portal Back End

Portal Front End



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NLUP Portal Benefits



Make Maps Your Way

Combine your date with date from Earl and other contributors to create maps for the work you do. Ready-to-use basemaps, tools, templates, and datasets make it easy to design and publish maps online.

Explore a World of Content

Browse the world's most extensive online geographic resource and discover maps and data about thousands of topics. Combine content any way you want and see it on a map.





NLUP Portal Benefits



Get Location-Based Insights

Whether you are a scientist, decision maker, or just curious, you will see location in a new way. By analyzing relationships and patterns, you can better understand problems and locate opportunities.

Connect with People Using GIS

Everyone in your organization can share the latest maps, data, and ideas on a single platform. Create project groups, customics work tools, and build your own web apps to connect people through GIS.



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NLUP Portal Benefits



Beautiful Styled Authoritative Maps

Browse maps on hundreds of topics. ArcGIS Online includes a Living Atlas of the World where you can explore interesting maps about people, businesses, sols, climate, and much more. In addition to besemaps, you get reference and thematic maps, covering the entire globe. Add your own data to make new appealing and interesting maps and layers.

Ready-to-Use Productivity Apps

With the apps included with ArcGIS Online, you can be productive right eway. Set up a custom website and publish your open data in just minutes. Collect information in the field and integrate the results with your GIS. Monitor activities, events, and assets through interactive deshboards. Map and enrich your business data right inside your existing business apps. Create engaging map stories you can share with anyone.





NLUP Portal Benefits



Powerful Data Analytics

Mep geographic relationships in your data to see meaningful patterns. Errich your business data with Esri's demographics and lifestyle data to get deeper insights. Look for new store locations, identify disease outbreaks, and generate drive times to hospitals. Do all this and more with ready-to-use analysis capabilities that work with your maps and apps.

Put Your Data to Work

Add date to your maps with just a few clicks. Highlight important information through infographics, cherts, and pop-up windows. Whether your data is on your own server or in Esri's cloud, it's easy to share with others. Or keep your data private. No matter what you choose, you maintain all ownership rights.



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NLUP Portal Benefits



Add Location to Your Business Data

Esri Location Analytics edds the power of mapping to your BI, CRM, EAM, and ERP systems. There are no new applications to learn, no programming is needed, and you don't have to be an expert. You can map and analyte your data directly in the business systems you already use.

Tools for Developers

Power your apps with ArcGIS. Develop in the API of your choice and deploy on any device.





NLUP Portal Workflow



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NLUP Portal Users Roles



NLUP Portal Data Types



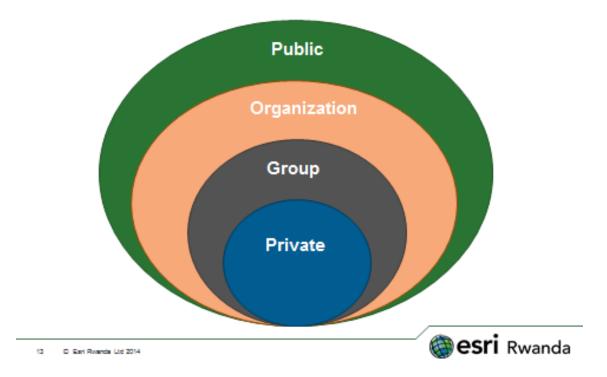
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NLUP Portal Sharing Options



NLUP Portal Sharing Options



Current Portal Content

Available to the public and registered users:

- 5 web maps of administrative boundaries
- · 5 feature services of administrative boundaries
- 5 downloadable shapefiles of administrative boundaries
- 30 maps of District Land Use Plans
- 1 map of National Land Use Development Master Plan
- · 6 national Land Use Plan related documents
- · 2 district Land Use Plans Text Books

Available to registered users only:

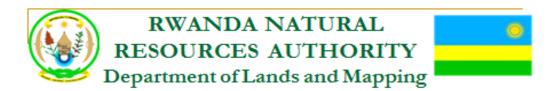
- 1172 downloadable shapefiles related to District Land Use Plans
- · 64 downloadable shapefiles related to National Level data





2.3.2 Basemap launch presentation

As the portal launch was combined with the launch of the new national basemap, the following are the power point presentations made by Eng. Didier G. SAGASHYA, Deputy Director General, Lands and Mapping at RNRA for the new basemap launch.



LAUNCHING THE NEW RWANDA BASEMAP 1:50,000

Eng. Didier G. Sagashya Deputy DG/DLM

26th Nov 2014



OUTLINE

- Why we need a basemap
- Old Topographic Map
- Rectified Aerial Photos
- Base map preparation
- Base map contents
- Sharing the basemap dataset
- Regional and global initiatives
- Future development

Why we need a base map

- Map on which information may be placed for purposes of comparison or geographical correlation
- It help in planning and development by providing boundaries, elevation, hydro, social infrastructure, physical infrastructure etc

OLD TOPOGRAPHIC MAP

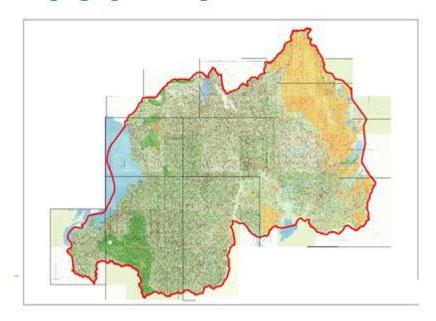
Old mapping

- A terrestrial control network established between1926 and 1959 by the Institute Geographique National Belgium (IGNB).
- African Doppler Survey (ADOS) project during 1983-84:13 stations coordinated in the old national terrestrial system.
- GPS Campaign 1991-92 Carried out by Landesvermessungsamt Rheinland-Pfalz and the Universität der Bundeswehr München in cooperation with Service de la Cartographie National du Rwanda. The network consisted of 28 central stations, and resulted into "Système Rwanda 92 (SR 92)"

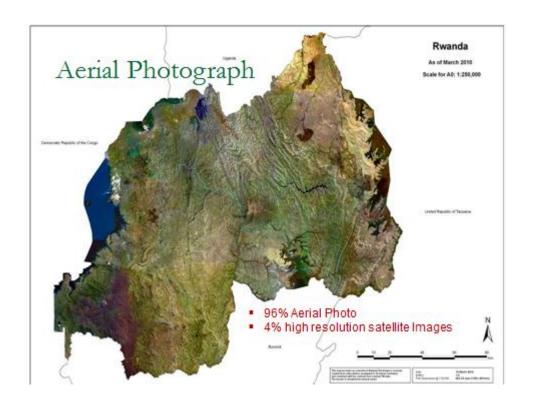




Topographic Map of 1978 - 1989



RECTIFIED AERIAL PHOTOS



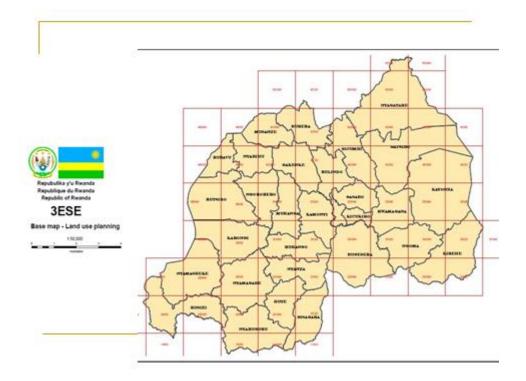
Rectified aerial photos

- Taken in Summer of 2008 and Summer of 2009
- 25cm resolution
- Ground control for rectification
- Used to update the old topo map
- Also used in Systematic Land Registration for demarcation of parcels

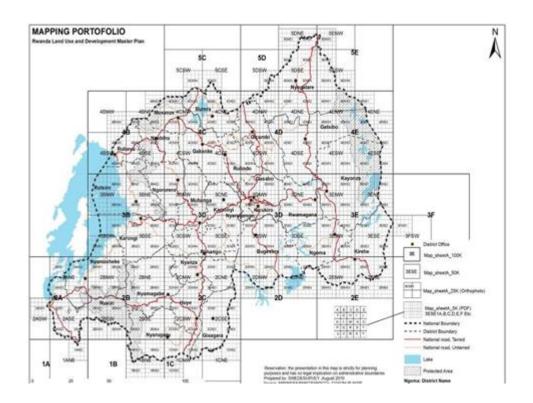
NEW BASE MAP PREPARATION

Basemap Preparation

- Using aerial photo/digitisation
- Existing spatial data set
- Using old topo map
- Name verification + Ground verification



BASEMAP CONTENT



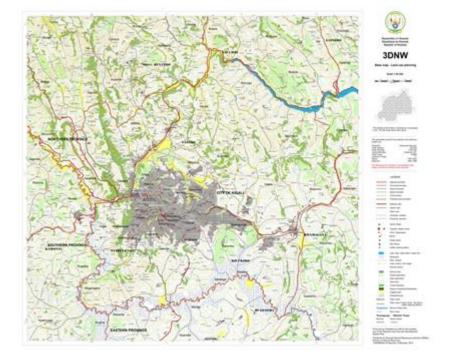
Content of base map

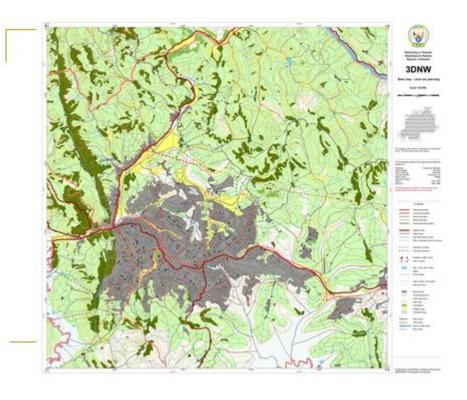
- Boundaries: Feature dataset has been devised for storage of all data layers related to boundaries, i.e. administrative boundaries, protected area boundaries, restricted areas, etc.
- Elevation feature dataset stores all layers related to elevation :contours, spot heights, trigonometric network, etc.
- Hydrography: The hydrography feature dataset has been devised for storage of all layers related to hydrography, i.e. drainage lines, water bodies, wells, water points, etc. Currently, hydrography includes :aquatic land, drainage.

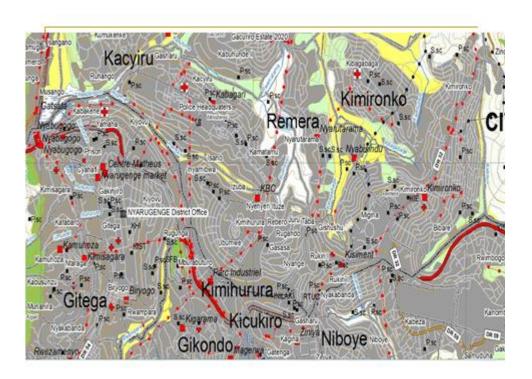
Content of base map

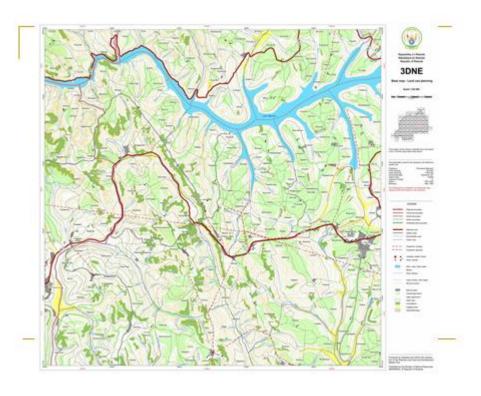
- Physical infrastructure feature dataset has been devised for storage of all layers related to physical infrastructure, i.e. roads, railways, power lines, etc. Currently, following datasets are contained: aviation, Runways, habours, power lines, road network
- Social infrastructure dataset is used for all datasets related to social infrastructure, i.e. health, education, governmental offices, markets etc. Currently, following datasets are contained: health facilities, imidugudu Villages, schools, places names...
- Thematic data feature dataset is intended for all layers related to thematic data, i.e. land cover/land use, geology, soils, Currently, following datasets are contained: land cover.

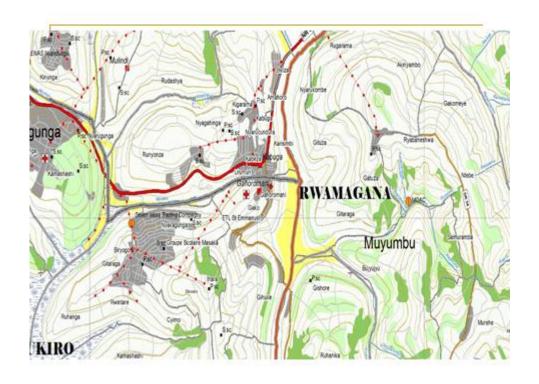






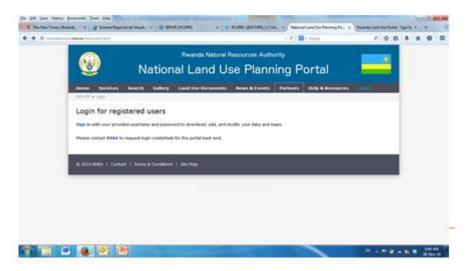






Sharing basemap data set

Through the planning portal for registered users



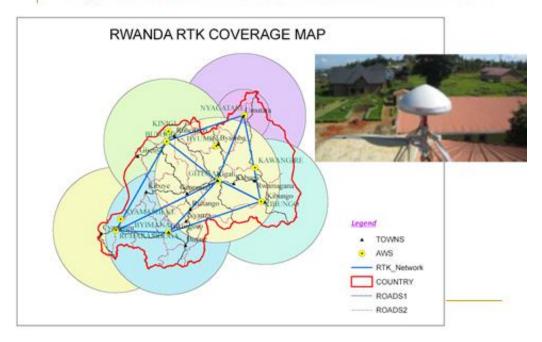
Regional and global initiative

- RCMRD Servir Africa Rwanda Land Cover Map for Green House Gas
- China Global Land Cover map
- NASA

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FUTURE DEVELOPMENT

Completed CORS - Geodetic Reference Network



Future development

- Keep updating the current basemap do corrections:
 - Need institutions custodian of data to provide them
 - Finalise metadata creation
- Developing location strategy
- With JICA produce large scale map for Cities (1:2000)

For more information: http://www.rnra.rw/

Twitter: @Lands_Rwanda

Email: didier.sagashya@rnra.rw

Thank you very much for your attention!!

2.4 Questions session

The questions session started right after the coffee break and the following are some of the relevant questions that were asked and answered:

Questions /Interventions	Answers	
The district land officer from Kayonza District asked if there is any plan to provide ArcGIS 10.2 version to district officers required for GIS professionals	Mr. Kaspar Kundert, Managing Director of Esri Rwanda promised a one year license for ArcGIS 10.2 for portal registered users.	
to work with the portal	Eng. Didier Sagashya, DDG RNRA, said that a permanent solution will be discussed with Esri to get permanent ArcGIS 10.2 licenses.	
Mr. Yves Bernard Ningabire from RALGA said that RALGA can help RNRA and LAND project to advertise the portal to local government.	DDG RNRA thanked Mr. Yves for this offer and promised that they will work together towards this objective of advertising this portal to the local government.	
Dr. Alfred Bizoza from IPAR asked why the district land use plans are for a 5 years horizon and not for a much longer period of 10 years for example	DDG RNRA said that the district land use plans are in line with the 2020 Rwanda vision and for this reason the horizon for the district land use plans could not go beyond this national planned target.	
Someone asked how a normal person for example in a rural area is going to benefit from this portal.	DDG of RNRA explained that the portal will be disseminating information about land use; a normal person will be checking what is planned in the area where he lives and plan his activities related to his land accordingly. This will avoid him wasting time and money trying to search for information.	
	He also mentioned that it is planned in the future that the portal will be hosting an application that can be consulted by the public to search information related to their parcels (i.e. exact area, relationship of their parcels with landuse plans etc.). The portal would therefore allow the normal person to quickly and easily get access to up to date and accurate data on land use planning data at a minimum cost.	

2.5 Closing remarks

The closing remarks were given by:

 Didier Sagashya, Deputy Director General, Lands and Mapping Department, Rwanda Natural Resources Authority (RNRA)

Mr. Didier recalled the importance of the portal and have encouraged the participants to promote the use of the portal wherever they are by making it known to the public. He also promised to the participants that the portal will be sustained by ensuring that it is regularly maintained and updated.

Anna Knox, Chief of Party, LAND Project

The following is Anna's closing remarks:

Thank you all for your attention, interest and thoughtful feedback on the portal. When the LAND Project decided to invest its support in the portal's development, we saw a clear opportunity to support ordinary Rwandan citizens.

Land use plans have emerged as a policy tool to achieve development in the face of high land pressures. Landholders are required to comply with land use plans. Indeed, it can affect their tenure security if they fail to do so. It is therefore critical that they have access to these plans.

With further development, the portal should soon allow users to type in their parcel number and zoom into the parcel to know its assigned land use, enabling them adjust their land uses as well as contact local authorities if they have any questions or concerns.

The portal is not a solution by itself. Many if not most ordinary citizens do not have access to the Internet or if they do, they may not have the speed or bandwidth capacity to download maps. Following development of the portal, the project will work with the RNRA to launch other communications tools that can reach people on the other side of the digital divide to help ensure that they too are informed about land use planning and the designated uses of their land.

Finally, I would like to applaud the enormous dedication by RNRA IT Staff and Esri in the development of this portal. The ambitious work plan set out for development of the portal is on track due to your tireless efforts and willingness to work through and find solutions to even the most thorny IT challenges. This is a brilliant tool that has the capacity to be of great service to Rwanda. We strongly encourage the GOR to not only use and maintain this tool, but to build on it and let is serve as a foundation for ongoing and future efforts to coordinate and share spatial information.

2.6 Getting familiar with the portal session

After the closing remarks, participants were invited to use 10 laptops that were made available to them to start using the portal. During this session, participants had time to navigate through the portal to get acquainted with public portal services like to search for data and maps, to visualize administrative boundaries web maps, to download administrative boundaries shapefiles as well as to download land use plans and their related textbooks.